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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/731,348	12/06/2000	Girja Narlikar	3-1	3767

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EXAMINER

CHOUDHARY, ANITA

ART UNIT	PAPER NUMBER
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2153

DATE MAILED: 10/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/731,348

Applicant(s)

NARLIKAR ET AL.

Examiner

Anita Choudhary

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

Applicant's arguments, see Amendment, filed July 19, 2004, with respect to the rejection(s) of claim(s) 1, 13, and 21 under 35 U.S.C §102(a) by Pristrotto et al. (US 6,138,162) and claims 7, 17, and 22 under 35 U.S.C §102(a) by Gupta (US 6,212,565) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Braddy (US 6,304,967), Yoakum et al. (US 6,421,674), and Sharma et al. (US 6,182,109).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3, 13, 15, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braddy (US 6,304,967) in view of Yoakum et al. (US 6,421,674).

In referring to claim 1, 13, and 21, Braddy shows a system for redirecting requests from a first server computer to a second server computer by examining the information request using a request broker software. The request broker software at the first server computer examines information regarding capabilities and resources available at the first and second server computers in order fulfill the request (see abstract). In referring to claim 1, Braddy shows:

- receiving a request for web resource (col. 8 lines 9-11);

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- determining if said web resource is a predefined file type (fig. 9a, 296, col. 15 lines 48-60);
and
- redirecting said web resource request to a server associated with said file type (col. 15 lines 61-col. 16 line 3, col. 13 lines 50-64).

Although Braddy discloses substantial features of the claimed invention, Braddy does not distinctly teach a proxy server storing web resource from among a plurality of proxy servers. Nonetheless this feature is well known and would have been an obvious modification to the system shown by Braddy as evidenced by Yoakum.

In an analogous art, Yoakum shows a plurality of proxy servers storing web resources and a method for distributing requests to an appropriate proxy server by redirection (see abstract and figure 5). In an attempt to fully utilize local resources a request is passed to subsequent proxy servers which performs a database look up to determine if message can be fulfilled (col. 4 lines 22-51).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system shown by Braddy to employ the features shown by Yoakum in order to facilitate the use of local resources without having to traverse the network to access the Internet, which creates security issues and network traffic. Proxy servers are used to help prevent the obtaining of internal addresses and attacks on a private network thereby making the private network less vulnerable.

In referring to claim 3 and 15, Braddy shows method for redirecting step further accessing a server selection table that associates said file type to a server (directory mapping performed at request broker, col. 10 lines 47-66).

Claims 2, 4, 5, 14, and 16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Braddy and Yoakum in further view of Gampper et al. (6,442,601).

In referring to claims 2 and 14, although Braddy and Yoakum shows substantial features of the claimed invention including redirection methods, they do not show *file type having an average size that exceeds a threshold*. Nonetheless this feature is well known in the art, and would have been an obvious modification to the system disclosed by Pistriotto as evidenced by Gampper.

In an analogous art Gampper shows a proxy cache system for saving files of a predetermined minimum size and greater into secondary storage in the cache (col. 6 lines 31-59).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system shown by Braddy and Yoakum by employing the feature shown by Gampper in order to employ a commonly known caching scheme for saving larger files thereby reducing bandwidth required in retrieving files from the network (col. 6 lines 60-col. 7 line 9).

In referring to claim 4, 5, and 16, Gampper shows a proxy server based on the recent history of client request patterns and analyzing the recent history of client request patterns (col. 3 lines 24-29).

Claims 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braddy and Yoakum in further view of Smith (6,341,311).

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Although Braddy and Yoakum show substantial features of independent claim 1 they do not show *assigning or sorting heavy domains into $P \times (1/h)$* . The claim essentially shows a formula for increasing the distribution to the number of proxy caches as the number of heavy requests goes up. Nonetheless this feature is well known in the art, and would have been an obvious modification to the system disclosed by Smith.

In an analogous art Smith shows the access requests in a distributed cache. Smith shows the addition of new proxy server in to the network (fig. 11, col. 18 lines 49-53).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system shown by Braddy and Yoakum in order to lower demand on proxy servers by balancing load to new participating proxy servers (see Smith col. 18 lines 54- col. 19 lines 14).

Claims 7-11, 17, 18, 20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma et al. (US 6,182,109) in view of Jordan (US 6,438,652).

In referring to claim 7, 17, and 22, Sharma shows a method for dynamically managing a pool or execution units in a server system by establishing both a minimum and maximum number of execution units in the communication process (see abstract). Sharma shows:

- receiving a request for said web resource (fig. 7B, 'send request', col. 23 lines 15-22);
- determining if said web resource request is served by a domain having a traffic volume that exceeds a predefined threshold (served by server with MinThread, col. 23 lines 27-30, col. 23 lines 60-65, figure 8A, 579); and

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- redirecting said web resource request to a server associated with said domain (fig. 8A, 581, col. 23 lines 66- col. 24 lines 2).

Although Sharma shows substantial features of the claimed invention, Sharma does not disclose selecting a proxy server storing web resources from among a plurality of proxy servers. Nonetheless this feature is well known in the art, and would have been an obvious modification to the system disclosed by Sharma, as evidenced by Jordan.

In an analogous art Jordan shows a method for load balancing proxy cache servers by forwarding requests (see abstract). Jordan shows a centralized load-balancing environment for redirecting client request to appropriate proxy cache servers from a plurality of proxy servers (col. 5 lines 50-56).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system shown by Sharma to employ the features shown by Jordan in order to facilitate the use of local resources without having to traverse the network to access the Internet, which creates security issues and network traffic. Proxy servers are used to help prevent the obtaining of internal addresses and attacks on a private network thereby making the private network less vulnerable.

In referring to claims 8 and 18, Sharma shows predefined threshold is based on maximum normalized daily load (MaxThreads, col. 24 lines 3-24).

In referring to claims 9 and 19, Jordan shows accessing a proxy selection table that associates said domain to a proxy server (col. 6 lines 52-56).

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In referring to claims 10, 11, and 20 Jordan shows redirection of said request is based on analysis of recent history of client request patterns (col. 6 lines 6-49).

Claim 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sharma and Jordan in further view of Smith (6,341,311).

Although Sharma and Jordan show substantial features of independent claim 7, Sharma and Jordan do not show assigning or sorting heavy domains into $P \times (1/h)$. The claim essentially shows a formula for increasing the distribution to the number of proxy caches as the number of heavy requests goes up. Nonetheless this feature is well known in the art, and would have been an obvious modification to the system disclosed by Smith.

In an analogous art Smith shows the access requests in a distributed cache. Smith shows the addition of new proxy server in to the network (fig. 11, col. 18 lines 49-53).

Given this feature, a person of ordinary skill in the art would have readily recognized the desirability and advantages of modifying the system shown by Sharma and Jordan in order to lower demand on proxy servers by balancing load to new participating proxy servers (see Smith col. 18 lines 54- col. 19 lines 14).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anita Choudhary whose telephone number is (703) 305-5268. The examiner can normally be reached on 9am-5pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess can be reached on (703) 305-4792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Anita Choudhary
October 15, 2004


FRANTZ B. JEAN
PRIMARY EXAMINER